

Patent claims

1. A heat exchanger (1) equipped with several tray-shaped plates (2a to 2z) which are placed on top
5 of one another, are sealed together on their peripheral edges and are provided with passages (4), where passages (4) lying essentially above one another form a continuous flow channel (6a to 6d) that traverses the plates (2a to 2z), and
10 where flow channels (6a to 6d) lying adjacent to one another are traversed by different media (M1, M2) from an admission side to a discharge side, the respective flow channel (6a to 6d) having an elongate cross section (QS).
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2. The heat exchanger as claimed in claim 1, in which the respective flow channel (6a to 6d) has an oval or rectangular cross section (QS).
- 20 3. The heat exchanger as claimed in one of the preceding claims, in which different, in particular adjacent flow channels (6a to 6d) have different cross-sectional shapes.
- 25 4. The heat exchanger as claimed in one of the preceding claims, in which the elongate cross section of a flow channel has a length L and a width B, and there is a length to width ratio L/B of between 1.5 and 12, preferably between 1.5 and
30 6, particularly preferably between 1.5 and 3 or between 4 and 6.
5. Use of the heat exchanger (1) as claimed in one of the preceding claims as a stacked-plate cooler for
35 a vehicle.
6. A plate (2a to 2z) for a heat exchanger (1) as claimed in one of the preceding claims, with

passages (4) which have an essentially elongate cross section (QS).

- 5 7. The plate as claimed in claim 6, in which the passages (4) have a rectangular or oval cross section (QS).
- 10 8. The plate as claimed in either of claims 6 and 7, in which different, in particular adjacent passages have different cross-sectional shapes.
- 15 9. The plate as claimed in one of claims 6 through 8, in which the elongate cross section of a passage has a length L and a width B, and there is a length to width ratio L/B of between 1.5 and 12, preferably between 1.5 and 6, particularly preferably between 1.5 and 3 or between 4 and 6.